

2D Wireless Barcode Scanner
2.4GHz. & BT SETUP MANUAL



SC430



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Version No. Description

Remarks: Please refer to the corresponding manual version for the detailed version function.

* Manual Version V4.3: Support software version above 01.44

Function Upgrade: function key add Ctrl, Alt, Shift & GUI.

* Manual Version V4.2: Support software version above 01.40

Function Upgrade: Japanese language setting.

* Manual Version V4.0: Support software version above 01.40

(Requires hardware circuit support, the old version does not support)

Function Upgrade: 2.4G extended cache setting.

* Manual Version V3.9: Support software version above 01.32

Function Upgrade:

1. Add enable & disable long press button to enter Bluetooth HID pairing function setting.
2. Add enable & disable long press button 16S to enter 2.4G pairing function setting.

* Manual Version V3.8: Support software version above 01.25

Function Upgrade:

1. Add “USB Priority Output” and “Simultaneous Output” mode.
2. Fixed the problem that Bluetooth switch is successful, but still alarm.
3. Add “GS-hex-0x1D conversion” function.
4. Add function code to get Bluetooth name and address.
5. Buzzer frequency setting.
6. Amend UTF8 Chinese output.

1. Basic Function



Factory Default

^&002&^



Software Version

^&001&^

2. Indicator Description

2.1 LED Details

Green light --> charging

- (1) Steady flash means charging.
- (2) Will goes out when the battery is fully charged.

Blue light --> Status

- (1) One quick flash for one successful scanning.
- (2) Flash will goes out if USB/2.4G/ Bluetooth HID are not connected.
- (3) Flash always on when USB or 2.4G or Bluetooth is connected.
- (4) Quick&continuous flash: entering 2.4G&Bluetooth HID pairing.

***Remarks:**

Flash slowly when entering Bluetooth SPP/BLE pairing.

2.2 Buzzer Details

A long beep--> Status:

- (1) Power on;
- (2) Bluetooth data transmission failed;

A short beep-->Status:

- (1) Bar-code read &upload successfully;
- (2) USB connect successfully;
- (3) 2.4G/Bluetooth connected or paired;

High&low short beep-->Status:

- (1) Setting code obtained successfully;
- (2) Data stored successfully;
- (3) Data upload completely;
- (4) Enter the off state;

Three short beeps--> Status:

- (1) USB/2.4G/Bluetooth is disconnected;
- (2) Data upload unsuccessfully or the storage Flash is full;
- (3) Setting code failed;

Three short tones with high and low rhythm --> Status:
Insufficient power, ready to enter off state;

2.3 Voice Setting

Sound Volume



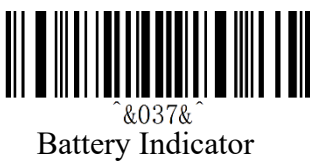
Sound Type



2.4 Voice Frequency



2.5 Battery Function



3. Wireless Transfer Description

3.1 Output Method



^&05A&^

USB Priority Output(*)



^&05B&^

Simultaneous Output
(USB, 2.4G& Bluetooth)

“USB Priority Output(*)” :

When using USB cable, data transfer wire USB cable only.

“Simultaneous Output”:

USB and 2.4G or Bluetooth output simultaneously. (Determined by communication mode).

If output is unsuccessful, will alarm.

3.2 Data Transfer Mode



^&005&^

Normal Mode(*)



^&006&^

Inventory Mode



^&007&^

Automatic Storage Mode

“Normal Mode”:

Data will be uploaded immediately, if data cannot save successfully, scanner will alarm.

“Automatic Storage Mode”:

Data will be saved automatically when the distance is exceeded.

Scan the "Upload All Data" bar-code to upload the data when the data need to check.

“Inventory Mode”:

Data will be saved automatically.

Scan the "Upload Statistical Data" bar-code when the statistical data need to be viewed or uploaded.

*Remarks:

Scan the “Upload All Data” to upload the data, then scan the “Clear All Data ” to clear the data first, otherwise the bar code read last time will be output again.



^&030&^

Clear All Data



^&031&^

Upload Statistical Data
(Amount of data)



^&032&^

Upload All Data

***Remarks**

“Clear All Data” is only effected under inventory mode.

3.3 Communication Mode



^&010&^

Receiver Mode(*)



^&011&^

Bluetooth HID Mode



^&012&^

Bluetooth BLE Mode



^&013&^

Bluetooth SPP Mode

◆ When switched to HID mode. The Bluetooth matched previously will be connected automatically.

◆ “Bluetooth BLE Transparent Transmission Mode”

Bluetooth devices (i.e. mobile phones/iPad and other Bluetooth devices) need to download or develop low-power Bluetooth BLE Transparent Transmission Software.

◆ “Bluetooth SPP Transparent Transmission Mode”

Bluetooth devices (i.e. mobile phones/iPad) need to download or develop Classic Bluetooth SPP Transparent Transmission Software.

***Remarks**

When there is a problem with Bluetooth communication, will alarm and indicate that the Bluetooth access is failed.

3.4 USB Interface Type



^&015&^

USB-HID(*)



^&016&^

USB-COM

3.5 Type of USB-HID Data



^&051&^

Keyboard function key (*)



^&052&^

Send Chinese Characters



^&053&^

Send ASCII

4. Sleeping Time Setting



^&040&^

No Sleep



^&041&^

Enter Sleep



^&042&^

10S



^&043&^

30S



^&044&^

1min(*)



^&045&^

2min



^&046&^

5min



^&047&^

10min



^&048&^

30min

5. Conversion

5.1 GS Characters Conversion



^&060&^
None(*)



^&061&^
GS Converts To <GS>



^&062&^
GS Converts To |



^&063&^
GS converts to]



^&064&^
GS Converts To ^]

5.2 Letter Case Conversion



^&07C&^
Normal Letter Case(*)



^&07D&^
All Uppercase



^&07E&^
All Lowercase



^&07F&^
Case Inversion

6. Language Setting



^&080&^



^&081&^

USA(*)



^&082&^
France



^&084&^
Canadian



^&086&^
Portuguese (Brazil)



^&088&^
Portuguese (Portugal)



^&08A&^
Turkey-F



^&08C&^
Italian 14



^&08E&^
Poland



^&090&^
Spanish (Latin America)



^&092&^
Hungary

German



^&083&^
Italy



^&085&^
Spanish (Spain)



^&087&^
Sweden



^&089&^
Belgium



^&08B&^
Turkey-Q



^&08D&^
Netherlands



^&08F&^
Finland



^&091&^
Serbia



^&093&^
Denmark



^&094&^
Norway



^&095&^
Japan

7. 2.4G Setting



^&010&^
Receiver Mode(*)

Scan this code, scanner will enter 2.4G mode automatically and connect to the receiver which is matched last time by default.

7.1 Pairing



^&021&^
2.4G Receiver Pairing

Two ways to enter “2.4G Receiver Pairing” setting

- (1) Scan the “Receiver Pairing” bar-code directly.
- (2) Pressing the button about 16 seconds.

There will be 2 sounds respectively, first at the 8th seconds, the second at the 16th seconds, then release the button.

2. Exit 2.4G Pairing:

- (1) When the Bluetooth is matched, it will prompt once and ending pairing.
- (2) Scan the “2.4G Receiver Pairing” to enter, then double-click the button to exit and it will prompt once.
- (3) If the receiver is not connected within 1 minute, it will exit automatically and with 3 beeps.

*Remarks

When exiting the pairing, if the receiver is not connected, it will connect to the receiver which is matched last time automatically by default.

7.2 Extended Cache Setting



^&D15&^

Disable (*)



^&D16&^

Enable

***Remarks:**

Disable:

New data need to wait after all data is upload completely.

Enable:

New data will be saved in the cache and send to devices automatically, so no need to wait all data transfer completely, this is to support continuous scanning.

8. Bluetooth Setting

8.1 Bluetooth HID Mode



^&011&^

Bluetooth HID Mode

***Remarks:**

Scan this bar-code above to enter the“Bluetooth HID Mode”and it will connect the Bluetooth which is matched last time automatically by default.

If not in broadcast state and need to pair the Bluetooth, please check below for more details.

8.2 Bluetooth HID Pairing



^&COF&^

Bluetooth HID Pairing

1. 2 ways to enter “Bluetooth HID Pairing” mode:

- (1) Scan the “Bluetooth HID Pairing” code, search for “Bluetooth” through the Bluetooth device.
- (2) Pressing the button and hold for about 8 seconds, there will be a sound, then release the button.

2. Exit “Bluetooth HID Pairing” mode:

- (1) When Bluetooth is matched, it will prompt once and ending pairing.

- (2) After scan the “Bluetooth HID Pairing” bar-code, then Double-click the button, it will prompt once.
- (3) If the Bluetooth is not matched within 1 minute, it will exit automatically and with 3 beeps.

***Remarks:**

When exiting pairing, if the new device is not connected, will connect to the device which is matched last time automatically by default.

8.3 Long press 8s to enter Bluetooth HID pairing setting



^&C25&^
Enable(*)



^&C26&^
Disable

8.4 Show & Hide the HID Virtual Keyboard in IOS



^&C08&^
Show & Hide the HID Virtual Keyboard in IOS

***Remarks:**

Quick press 3 times to enable show or hide IOS virtual keyboard function.

8.5 Bluetooth HID Transfer Rate Setting



^&C09&^
Fast



^&C0A&^
Medium(*)



^&C0B&^
Low



^&C20&^
Ultra-low speed

***Remarks:**

- ◆ Fast speed uploading is recommended in IOS.
- ◆ Set the corresponding speed according to the response speed of the phone under Android system.
- ◆ When the uploaded data is messed up & lost, try to turn down the speed.

8.6 Bluetooth HID RSSI Setting



^&013&^

Bluetooth SPP Mode

Scan the “Bluetooth SPP Mode” bar-code to enter, and it can be matched directly in the broadcast state by default.

8.7 Bluetooth BLE Mode



^&012&^

Bluetooth BLE Mode

Scan the “**Bluetooth BLE Mode**” bar-code, it will automatically enter into the Bluetooth BLE mode, and automatically connect the Bluetooth that was matched last time by default. If it is not connected, it will automatically be in the broadcast state and can be matched directly.

8.8 Bluetooth Name Setting

8.8.1 Bluetooth Name Bar-code Definition



^&C0C&^XXX

Bluetooth Name Bar-code Definition

1. Fixed front character“^&C0C&^”,‘XXX’ is the name needed to be set.
2. The Bluetooth name can be set to 24 bytes at most.

***Remarks:**

The name of Bluetooth HID/SPP/BLE will all changed after modifying.

8.8.2 Bluetooth Name ASCII Definition



^&C0D&^

Bluetooth Name ASCII Definition

Steps:

1. Scan "Bluetooth Name ASCII Definition" bar-code.
2. Scan the contents to be added in sequence, please refer to the ASCII code table.
3. Scan "Save Data and Exit" bar-code.

***Remarks:**

The Bluetooth name can be set to 24 bytes at most.

8.8.3 Bluetooth Name Default



^&COE&^

Bluetooth Name Default

***Remarks:**

Scan the “Bluetooth Name Default” bar-code Or the “Default Setting” bar-code, custom Bluetooth names will be cleared.

8.9 Bluetooth Name&Address Setting

8.9.1 Get Bluetooth Name



^&C10&^

Get Bluetooth Name

This code only worked under the Bluetooth HID/SPP/BLE mode.

8.9.2 Get Bluetooth Address



^&C11&^

Get Bluetooth Address

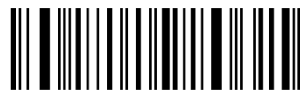
This code only worked under the Bluetooth HID/SPP/BLE mode.
If the Bluetooth address cannot be displayed, try use serial port to check.

9. Software Update



^&BF0&^

Update Transmitter Program



^&FF0&^

Update the Receiver Program



^&CF0&^

Update Bluetooth Program
















10. Hide Character Function Settings

10.1 Hide the First Character











<p align="center">Hide the First Character</p> <p align="center">Shortcut Settings for Hiding the digit from the beginning</p> <p align="center">Note: How many digits are hidden from the beginning by default</p> <p align="center">The format is as follows: ^&600&^ to ^&6FF&^, 00~FF are hidden digits</p>		
<p align="center">^&601&^ Hide the first 1 digit</p>		<p align="center">^&602&^ Hide the first 2 digit</p>
	<p align="center">^&603&^ Hide the first 3 digit</p>	
<p align="center">^&604&^ Hide the first 4 digit</p>		<p align="center">^&605&^ Hide the first 5 digit</p>
	<p align="center">^&606&^ Hide the first 6 digit</p>	
<p align="center">^&607&^ Hide the first 7 digit</p>		<p align="center">^&608&^ Hide the first 8 digit</p>
	<p align="center">^&609&^ Hide the first 9 digit</p>	
<p align="center">^&60A&^ Hide the first 10 digit</p>		<p align="center">^&60B&^ Hide the first 11 digit</p>
	<p align="center">^&60C&^ Hide the first 12 digit</p>	
<p align="center">^&60D&^ Hide the first 13 digit</p>		<p align="center">^&60E&^ Hide the first 14 digit</p>

	 [^] &60F [^] Hide the first 15 digit	
--	------------------------------------------------------------------------------------------------------------------------------------------------	--

10.2 Hide the last Character






































Hide the last Character Note: Shortcut Settings for Hiding the digit from the last The format is as follows: [^] &700 [^] to [^] &7FF [^] , 00~FF are hidden digits		
 [^] &701 [^] Hide the last 1 digit		 [^] &702 [^] Hide the last 2 digit
	 [^] &703 [^] Hide the last 3 digit	
 [^] &704 [^] Hide the last 4 digit		 [^] &705 [^] Hide the last 5 digit
	 [^] &706 [^] Hide the last 6 digit	
 [^] &707 [^] Hide the last 7 digit		 [^] &708 [^] Hide the last 8 digit
	 [^] &709 [^] Hide the last 9 digit	
 [^] &70A [^] Hide the last 10 digit		 [^] &70B [^] Hide the last 11 digit
	 [^] &70C [^] Hide the last 12 digit	
 [^] &70D [^] Hide the last 13 digit		 [^] &70E [^] Hide the last 14 digit
	 [^] &70F [^] Hide the last 15 digit	








































11. Data Code Table








































Data Code Table		
	 ^&3F0&^ 0	
 ^&3F1&^ 1		 ^&3F2&^ 2
	 ^&3F3&^ 3	
 ^&3F4&^ 4		 ^&3F5&^ 5
	 ^&3F6&^ 6	
 ^&3F7&^ 7		 ^&3F8&^ 8
	 ^&3F9&^ 9	






































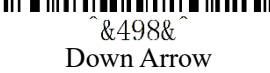
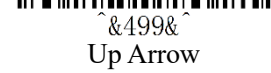
12. ASCII Code Table

ASCII Code Table

	 ^&400&^ SOH	
 ^&401&^ SOH(start of headline)	 ^&402&^ STX (start of text)	 ^&403&^ ETX
 ^&404&^ EOT	 ^&405&^ ENQ	 ^&406&^ ACK
 ^&407&^ BEL	 ^&408&^ BS	 ^&409&^ HT
 ^&40A&^ LF	 ^&40B&^ VT	 ^&40C&^ FF
 ^&40D&^ CR	 ^&40E&^ SO	 ^&40F&^ SI
 ^&410&^ DLE	 ^&411&^ DC1	 ^&412&^ DC2
 ^&413&^ DC3	 ^&414&^ DC4	 ^&415&^ NAK
 ^&416&^ SYN	 ^&417&^ ETB	 ^&418&^ CAN
 ^&419&^ EM	 ^&41A&^ SUB	 ^&41B&^ ESC
 ^&41C&^ FS	 ^&41D&^ GS	 ^&41E&^ RS
 ^&41F&^ US	 ^&420&^ SP	 ^&421&^ !
 ^&422&^ "	 ^&423&^ #	 ^&424&^ \$

 ^&425&^ %	 ^&426&^ &	 ^&427&^ .
 ^&428&^ ( ^&429&^)	 ^&42A&^ *
 ^&42B&^ +	 ^&42C&^ ,	 ^&42D&^ -
 ^&42E&^ .	 ^&42F&^ /	 ^&430&^ 0
 ^&431&^ 1	 ^&432&^ 2	 ^&433&^ 3
 ^&434&^ 4	 ^&435&^ 5	 ^&436&^ 6
 ^&437&^ 7	 ^&438&^ 8	 ^&439&^ 9
 ^&43A&^ :	 ^&43B&^ ;	 ^&43C&^ <
 ^&43D&^ =	 ^&43E&^ >	 ^&43F&^ ?
 ^&440&^ @	 ^&441&^ A	 ^&442&^ B
 ^&443&^ C	 ^&444&^ D	 ^&445&^ E
 ^&446&^ F	 ^&447&^ G	 ^&448&^ H
 ^&449&^ I	 ^&44A&^ J	 ^&44B&^ K

 ^&44C&^ L	 ^&44D&^ M	 ^&44E&^ N
 ^&44F&^ O	 ^&450&^ P	 ^&451&^ Q
 ^&452&^ R	 ^&453&^ S	 ^&454&^ T
 ^&455&^ U	 ^&456&^ V	 ^&457&^ W
 ^&458&^ X	 ^&459&^ Y	 ^&45A&^ Z
 ^&45B&^ [ ^&45C&^ \	 ^&45D&^]
 ^&45E&^ ^	 ^&45F&^ -	 ^&460&^ ,
 ^&461&^ a	 ^&462&^ b	 ^&463&^ c
 ^&464&^ d	 ^&465&^ e	 ^&466&^ f
 ^&467&^ g	 ^&468&^ h	 ^&469&^ i
 ^&46A&^ j	 ^&46B&^ k	 ^&46C&^ l
 ^&46D&^ m	 ^&46E&^ n	 ^&46F&^ o
 ^&470&^ p	 ^&471&^ q	 ^&472&^ r

 ^&473&^ s	 ^&474&^ t	 ^&475&^ u
 ^&476&^ v	 ^&477&^ w	 ^&478&^ x
 ^&479&^ y	 ^&47A&^ z	 ^&47B&^ [
 ^&47C&^ 	 ^&47D&^]	 ^&47E&^ ~
 ^&47F&^ DEL	 ^&480&^ Caps Lock	 ^&481&^ function key F1
 ^&482&^ function key F2	 ^&483&^ function key F3	 ^&484&^ function key F4
 ^&485&^ function key F5	 ^&486&^ function key F6	 ^&487&^ function key F7
 ^&488&^ function key F8	 ^&489&^ function key F9	 ^&48A&^ function key F10
 ^&48B&^ function key F11	 ^&48C&^ function key F12	 ^&48D&^ Print Screen
 ^&48E&^ Scroll Lock	 ^&48F&^ Pause	 ^&490&^ Insert
 ^&491&^ Home	 ^&492&^ Page Up	 ^&493&^ Delete
 ^&494&^ Page Down	 ^&495&^ End	 ^&496&^ Right Arrow
 ^&497&^ Left Arrow	 ^&498&^ Down Arrow	 ^&499&^ Up Arrow

 ^&49A&^ Num Lock(keypad)	 ^&49B&^ /(keypad)	 ^&49C&^ *(keypad)
 ^&49D&^ -(keypad)	 ^&49E&^ +(keypad)	 ^&49F&^ Enter(keypad)
 ^&4A0&^ 1(keypad)	 ^&4A1&^ 2(keypad)	 ^&4A2&^ 3(keypad)
 ^&4A3&^ 4(keypad)	 ^&4A4&^ 5(keypad)	 ^&4A5&^ 6(keypad)
 ^&4A6&^ 7(keypad)	 ^&4A7&^ 8(keypad)	 ^&4A8&^ 9(keypad)
 ^&4A9&^ 0(keypad)	 ^&4AA&^ .(keypad)	AB~CF 保留 待用

Add Ctr/Shift/Alt/GUI function key

***Remarks**

During setup, need to press and release the button accordingly.

If keep pressing the button but no release, data will not be uploaded and may cause the computer lock screen or other hot key problems.

 ^&4D0&^ L-Ctrl Press	 ^&4D1&^ L-Shift Press	 ^&4D2&^ L-Alt Press
 ^&4D3&^ L-GUI Press	 ^&4D4&^ R-Ctrl Press	 ^&4D5&^ R-Shift Press
 ^&4D6&^ R-Alt Press	 ^&4D7&^ R-GUI Press	
 ^&4D8&^ L-Ctrl Release	 ^&4D9&^ L-Shift Release	 ^&4DA&^ L-Alt Release
 ^&4DB&^ L-GUI Release	 ^&4DC&^ R-Ctrl Release	 ^&4DD&^ R-Shift Release
 ^&4DE&^ R-Alt Release	 ^&4DF&^ R-GUI Release	E0~FF

13. Long Press Button Description

◆ "Communication Mode" switches to the "Bluetooth SPP" mode

Pressing the button and hold for about 8 seconds, then release after a sound is heard.

◆ "Communication Mode" switch to "Bluetooth BLE" mode

Pressing the button and hold for about 16 seconds, then release after a sound is heard.

◆ "MCU and Bluetooth update" program

Pressing the button and hold for about 90 seconds, then release after a sound is heard, press the button 3 times quickly within 10s.

(If the button is not pressed within 10 seconds, the system will automatically enter normal use mode.)

***Remarks**

The third function is turned off by default.

Appendix III ASCII Table

BIN	DEC	HEX	COM	KEYBOARD
0000 0000	0	00	NUL	NULL
0000 0001	1	01	SOH	ENTER
0000 0010	2	02	STX	CAPS LOCK
0000 0011	3	03	ETX	NULL
0000 0100	4	04	EOT	NULL
0000 0101	5	05	ENQ	NULL
0000 0110	6	06	ACK	NULL
0000 0111	7	07	BEL	ENTER
0000 1000	8	08	BS	←
0000 1001	9	09	HT	TAB
0000 1010	10	0A	LF	↓
0000 1011	11	0B	VT	TAB
0000 1100	12	0C	FF	DELETE
0000 1101	13	0D	CR	ENTER
0000 1110	14	0E	SO	INSERT
0000 1111	15	0F	SI	ESCAPSE
0001 0000	16	10	DLE	F11
0001 0001	17	11	DC1	HOME

0001 0010	18	12	DC2	PRINT SCREEN
0001 0011	19	13	DC3	DELETE
0001 0100	20	14	DC4	TAB+SHIFT
0001 0101	21	15	NAK	F12
0001 0110	22	16	SYN	F1
0001 0111	23	17	ETB	F2
0001 1000	24	18	CAN	F3
0001 1001	25	19	EM	F4
0001 1010	26	1A	SUB	F5
0001 1011	27	1B	ESC	F6
0001 1100	28	1C	FS	F7
0001 1101	29	1D	GS	F8
0001 1110	30	1E	RS	F9
0001 1111	31	1F	US	F10
0010 0000	32	20	(SPACE)	(SPACE)
0010 0001	33	21	!	!
0010 0010	34	22	"	"
0010 0011	35	23	#	#
0010 0100	36	24	\$	\$
0010 0101	37	25	%	%
0010 0110	38	26	&	&
0010 0111	39	27	'	'
0010 1000	40	28	((
0010 1001	41	29))
0010 1010	42	2A	*	*
0010 1011	43	2B	+	+
0010 1100	44	2C	,	,
0010 1101	45	2D	-	-
0010 1110	46	2E	.	.
0010 1111	47	2F	/	/
0011 0000	48	30	0	0
0011 0001	49	31	1	1
0011 0010	50	32	2	2
0011 0011	51	33	3	3
0011 0100	52	34	4	4
0011 0101	53	35	5	5
0011 0110	54	36	6	6
0011 0111	55	37	7	7
0011 1000	56	38	8	8
0011 1001	57	39	9	9
0011 1010	58	3A	:	:
0011 1011	59	3B	;	;
0011 1100	60	3C	<	<

0011 1101	61	3D	=	=
0011 1110	62	3E	>	>
0011 1111	63	3F	?	?
0100 0000	64	40	@	@
0100 0001	65	41	A	A
0100 0010	66	42	B	B
0100 0011	67	43	C	C
0100 0100	68	44	D	D
0100 0101	69	45	E	E
0100 0110	70	46	F	F
0100 0111	71	47	G	G
0100 1000	72	48	H	H
0100 1001	73	49	I	I
0100 1010	74	4A	J	J
0100 1011	75	4B	K	K
0100 1100	76	4C	L	L
0100 1101	77	4D	M	M
0100 1110	78	4E	N	N
0100 1111	79	4F	O	O
0101 0000	80	50	P	P
0101 0001	81	51	Q	Q
0101 0010	82	52	R	R
0101 0011	83	53	S	S
0101 0100	84	54	T	T
0101 0101	85	55	U	U
0101 0110	86	56	V	V
0101 0111	87	57	W	W
0101 1000	88	58	X	X
0101 1001	89	59	Y	Y
0101 1010	90	5A	Z	Z
0101 1011	91	5B	[[
0101 1100	92	5C	\	\
0101 1101	93	5D]]
0101 1110	94	5E	^	^
0101 1111	95	5F	_	_
0110 0000	96	60	`	`
0110 0001	97	61	a	a
0110 0010	98	62	b	b
0110 0011	99	63	c	c
0110 0100	100	64	d	d
0110 0101	101	65	e	e
0110 0110	102	66	f	f
0110 0111	103	67	g	g

0110 1000	104	68	h	h
0110 1001	105	69	i	i
0110 1010	106	6A	j	j
0110 1011	107	6B	k	k
0110 1100	108	6C	l	l
0110 1101	109	6D	m	m
0110 1110	110	6E	n	n
0110 1111	111	6F	o	o
0111 0000	112	70	p	p
0111 0001	113	71	q	q
0111 0010	114	72	r	r
0111 0011	115	73	s	s
0111 0100	116	74	t	t
0111 0101	117	75	u	u
0111 0110	118	76	v	v

0111 0111	119	77	w	w
0111 1000	120	78	x	x
0111 1001	121	79	y	y
0111 1010	122	7A	z	z
0111 1011	123	7B	{	{
0111 1100	124	7C		
0111 1101	125	7D	}	}
0111 1110	126	7E	~	~
0111 1111	127	7F	DEL	DEL